

**AMENDMENT**

**IN THE CLAIMS:**

*Please cancel claims 24-27 and 31, withdraw claims 28-30 and 35, and amend claim 28 as provided below.*

1-27. (Canceled)

28. (Currently amended **and** Withdrawn) — ~~The semiconductor device of claim 24~~ A semiconductor device, comprising:

a ferroelectric capacitor formed above a semiconductor body; and  
a hydrogen barrier formed along at least a portion of a side of the ferroelectric capacitor, the hydrogen barrier comprising:

a nitrided aluminum oxide material formed along at least a portion of the side of the ferroelectric capacitor; and

a silicon nitride layer formed over the nitrided aluminum oxide material, wherein the silicon nitride layer comprises:

a first silicon nitride layer formed over at least a portion of the nitrided aluminum oxide material; and

a second silicon nitride layer formed over at least a portion of the first silicon nitride layer, the second silicon nitride layer comprising a low silicon-hydrogen SiN material having an FTIR figure of merit value of about 0.05 or less, wherein the FTIR figure of merit is calculated as (Si-H absorbance) / (N-H absorbance x 1.4).

29. (Withdrawn) The semiconductor device of claim 28, wherein the low silicon-hydrogen SiN material has an FTIR figure of merit value of about 0.04 or less.

30. (Withdrawn) The semiconductor device of claim 28, wherein the low silicon-hydrogen SiN material has an FTIR figure of merit value of about 0.03 or less.

31. (Canceled).
32. (Original) A semiconductor device, comprising:  
a ferroelectric capacitor formed above a semiconductor body;  
an aluminum oxide material formed along at least a portion of a side of the ferroelectric capacitor;  
a first silicon nitride layer formed over at least a portion of the aluminum oxide material; and  
a second silicon nitride formed layer over at least a portion of the first silicon nitride layer, the second silicon nitride layer comprising a low silicon-hydrogen SiN material having an FTIR figure of merit value of about 0.05 or less, wherein the FTIR figure of merit is calculated as (Si-H absorbance) / (N-H absorbance x 1.4).
33. (Original) The semiconductor device of claim 32, wherein the low silicon-hydrogen SiN material has an FTIR figure of merit value of about 0.04 or less.
34. (Original) The semiconductor device of claim 32, wherein the low silicon-hydrogen SiN material has an FTIR figure of merit value of about 0.03 or less.
35. (Withdrawn) The semiconductor device of claim 32, wherein at least a portion of the oxide material is nitrided.
36. (Original) A hydrogen barrier for protecting ferroelectric capacitors in a semiconductor device, comprising:  
an aluminum oxide material formed along at least a portion of a side of a ferroelectric capacitor;  
a first silicon nitride layer formed over at least a portion of the aluminum oxide material; and

a second silicon nitride layer formed over at least a portion of the first silicon nitride layer, the second silicon nitride layer comprising a low silicon-hydrogen SiN material having an FTIR figure of merit value of about 0.05 or less, wherein the FTIR figure of merit is calculated as  $(\text{Si-H absorbance}) / (\text{N-H absorbance} \times 1.4)$ .